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KEY WEST EXTENSION

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ANNOUNCEMENT  
KEY WEST  
EXTENSION



FLORIDA  
EAST COAST  
RAILWAY  
OPENED JANUARY 22<sup>ND</sup> 1912





# FLORIDA EAST COAST RAILWAY KEY WEST TERMINAL "AMERICA'S GIBALTAR"



## DISTANCES IN ENGLISH STATUTE MILES FROM KEY WEST TO:

Belize, British Honduras	618	Honolulu (via Panama Canal)	5,686
Bluefields, Nicaragua	1,050	Matanzas, Cuba	135
Cienfuegos, Cuba (via Cape San Antonio)	625	New Orleans, La.	580
Colon, Panama	1,386	Port Limon, Costa Rica	1,090
Galveston, Tex.	865	Santiago de Cuba (via Cape San Antonio)	735
Greytown, Nicaragua	1,075	San Juan, P. R.	1,115
Guayaquil, Ecuador (via Panama Canal)	2,386	Tampico, Mexico	1,025
Havana, Cuba	105	Valparaiso, Chile	3,686
		Vera Cruz, Mexico	990

THE MATTHEWS-NORTHROP WORKS, BUFFALO, N.Y.

# FLORIDA EAST COAST RAILWAY

showing the  
KEY WEST  
EXTENSION  
and  
IMPORTANT  
RAILWAY and  
STEAMSHIP  
CONNECTIONS  
also  
location of  
EAST COAST  
HOTELS





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# KEY WEST EXTENSION



FLORIDA EAST COAST  
RAILWAY

OPENED JANUARY 22<sup>ND</sup> 1912

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FLORIDA EAST COAST RAILWAY



THIS VIADUCT ALONE IS A MONUMENT TO A WHOLE LIFETIME OF CONSTRUCTIVE SKILL AND  
ENTERPRISE



## THE EAST COAST OF FLORIDA

**T**HE story of the discovery and development of Florida is among the romances of human history. It had its beginning in the twilight of the fifteenth century; it approaches its industrial meridian in the dawn of the twentieth century. It takes its ever-varying color from the learning of Italy, the craft of Spain, the courage of France, the prowess of England, until to-day it comes into the view of the whole world in the gleam of American achievement, radiant in the results of American skill and enterprise. Unique in its whole history, the peninsula to-day challenges world-wide attention and admiration with a work of art and enterprise which has bridged the most remarkable chain of islands in the world, defied and conquered the mighty grasp of tropical storm and seething sea, made a safe pathway through trackless waters, binding the fringe of the North American continent to its native land with bonds of steel.

The four centuries of history of the Florida peninsula are too full of human interest to be included in so brief a story as this booklet tells. But we may look backward for a moment. Columbus made the year 1492 famous by his first western voyage. While this voyage neither touched nor sighted the mainland of the Western Hemisphere it opened the eyes of European mariners to oceans of possibilities. Voyage after voyage of search and discovery were made. Although no white man had touched the new continent, its shores were sailed and charted before the fifteenth century had ended. At least one map of the new discovered territory had been made. This map, as John Fiske states, was made in Portugal, at the order of Alberto Cantino, by some unknown cartographer. It is still in perfect preservation in the Estense Library at Modena, Italy. Its clear outlines portray with

startling exactness the westward swerving coastline of the peninsula and its bordering fringe of islands and islets, which to-day are in vital touch with the commerce of the world. It was eleven years later, or in 1513, that the peninsula was christened with the name it bears to-day. A sunny Easter Sunday morning saw the caravels of Ponce de Leon making a new pathway through the summer sea. At about the thirtieth



KNIGHTS KEY DOCK — THE SOUTHERN TERMINUS SINCE FEBRUARY, 1908

parallel of north latitude De Leon planted the banner of Spain on the new continent, claiming title to all "those regions and islands found in the West Ocean Sea," as given to Ferdinand and Isabella by the bull of Pope Alexander VI., issued May 4, 1493. The planting of the Spanish banner was, however, far short of conquest and possession, for it was followed by full fifty years of failure. History reserved for France the founding of the first actual settlement of Florida, when a colony was established near the mouth of the St. John's River, under the leadership of Rene de Laudonniere. Whether this French

invasion of what was looked upon as Spanish soil would ever have succeeded is a matter of grave doubt to the candid student of history. However, Spain settled the fate of the French venture in the person of Pedro Menendez d'Avilez, who landed near the present site of St. Augustine on the 4th of September, 1565, with a large and well-equipped colony. Menendez, guided by the missionary enterprise inspired by the bull of Alexander, proved himself an apostle of completeness and permanency. The story of the bloody treachery which wiped out the French colony and changed the name of the river of the Dolphins to Matanzas ("place of slaughter") is too well known to be repeated here. The results of one bloody morning settled the Spaniard in St. Augustine, in 1565, and since that time the peninsula has been continuously inhabited by white men. Menendez was as clever as an administrator as he was keen as a soldier. Nature and his foresight worked with his cleverness and keenness to the success of Spanish occupation, so that a few years later, when he returned to Spain, he left forts and missions at St. Augustine, San Mateo, Santa Lucia de Canaveral, Carlos, and Tequesta, the site of the last named having been either on Cape Florida or at the mouth of the Miami River.

Like many another Spanish sailor, Menendez had lost one of his sons along that fringe of the continent, the Keys of Florida, and in search of him he explored the whole system of the Keys as far as the Tortugas.

Then, as now, the Keys were full of vital interest to the mariner. Scores of ships had been wrecked on their low-lying shores and hidden reefs. In the surrounding shark-infested waters hundreds of sailors had disappeared, until the name of death, "The Martyrs," had become the synonym for the quiet islands sleeping in a summer sea, but so often torn and tossed by storms of tropical violence and hurricane force. Torn away from the mainland by one of the mighty birth-throes of Nature, "The Martyrs" had laid the grip of summary vengeance



on human invention and human life and had taken their toll of ships and men with a relentless eagerness.

### THE FLORIDA KEYS

It is highly probable that the system of the Keys came into being in one of the dramatic periods of the earth's history. Not long before the age of man the slumbering continent was



KNIGHTS KEY BRIDGE AND TEMPORARY TRESTLE, SHOWING THE TEMPORARY TRACK TO KNIGHTS KEY DOCK AS RELATED TO THE MAIN LINE OF THE EXTENSION

wakened by the shuddering of mighty forces. The low-lying mainland, extending from the farthest northwest to Key West, rocked in the surging arms of Nature. The whole peninsula of Florida came up from the sea, and away to the westward the Cordilleras raised their heads to await the crown of the snows of centuries. A little later, a second upheaval threw the shore of what is now the Gulf of Mexico to the southward, somewhere near its present limits. A great ocean current swept out of the Gulf, cutting away the land between Cape Sable and Key West, wearing channels for the flood of waters in such fashion



as outlined the system of the Keys. As implied in the story of their origin, the Keys are composed largely of limestone similar to that of the mainland. Here and there a coral island "lifts its fronded palms in air." The soil of all the islands is wonderfully fertile, and the natives have reaped harvests of tropical fruits year after year with the minimum of labor and expense. There is no other winter climate in the world comparable with that of these islands. Summer sun, summer sea, tempered by ocean breezes soft with the tonic touch of life, make an environment unsurpassed and unequaled. The minimum of difference marks the change from day to night. No cold or cloudy days ever bring their cheerless aspect to these summer lands, whose shores are bathed by summer seas, gorgeous by day with varying color and enchanting by night in the matchless starlight of the sky and the gleaming phosphorescence of the waters. The Keys extend from the northeast toward the southwest, along the edge of the mainland at varying distances from Soldier Key, near Cape Florida, to the Tortugas in the Gulf, with the ancient "Cayos Huesas," the modern Key West, as the queen and jewel of the group. Key West, with its large area, its deep water, its populous and busy modern life, is the



LONG KEY VIADUCT FROM LONG KEY FISHING CAMP

southernmost port in the United States. Strategically, it is the key to and the protection of all the ports on the extended shore line of the Gulf of Mexico. Since the genius of our Government has made the Panama Canal a fact in the world's commerce, Key West has assumed new and great importance. Coupled with this, the spirit of our modern commerce calls for rapid transit wherever the inventiveness and enterprise of man can bring it into service. Never before was the adage "time is money" so true as it is to-day. There are men whose minutes are worth millions. There are materials, necessary



FLOATING CAMP OR QUARTERBOAT

to feed and clothe the world, whose chief value is in their transportation, and in that transportation time is of the highest importance. Quick transportation is not a new craze of our nervous modern life, it has become a necessity of our existence. We think in a flash from New York to Yokohama. The equator is in touch with the poles. The tropics and the temperate zones, the Occident and Orient exchange food stuffs, regardless of time, climate, or distance.

As has been intimated, the assurance of the Panama Canal made the world look at the Keys of Florida and Key West from a new point of view. The canal opens in a moment tremendous vistas and pushes our commercial horizon across the seven

seas. Key West is almost three hundred miles nearer the eastern terminus of the canal than any other of our Gulf ports. At the same time it is the natural base for guarding and protecting the canal on the east and our great Gulf coast. That the island should be closer to the mainland had been the dream of generations. The dream had become a necessity to our commerce, our national interest, and our national safety. But could the dream come true, could the necessity be met? There was but one solution of the problem, but one answer to the question, a railway must be built from the peninsula over stretches of treacherous shoal, across channels of rushing seas, through the chain of islands to Key West. The financiers considered the project and said, Unthinkable. The railway managers studied it and said, Impracticable. The engineers pondered the problems it presented and from all came the one verdict, Impossible.

The consensus of public opinion called the railway scheme by many names, all of which reëchoed the verdicts of the experts. But, strange as it may seem, there was a financier with the courage of Columbus, a railway manager with the administrative grip of a Menendez, and an engineer as brave and as far-seeing as the pilots who brought the caravels of



ONE OF THE DREDGES USED IN BUILDING EMBANKMENT



Spain through miles of unknown and uncharted seas. As these three considered the problem of the oversea railway, they had but one conviction — it was thinkable, practicable, possible, it could and would be accomplished. And in the dawn of the twentieth century the story of Florida's real development moves toward its climax.

### THE DEVELOPMENT OF THE EAST COAST

It is difficult for most people to realize that Florida really remained a Spanish possession until 1821. It passed through the usual experience of Spanish colonies, which meant existence without vitality, possession without progress, the business



WHETHER THEY WERE HOUSED IN BOATS OR BARRACKS, EVERY PRECAUTION WAS TAKEN TO ASSURE THEIR HEALTH AND SAFETY

of the colony always managed with a view to the personal profit of the official class. Not even during the English ownership, from 1763 to 1783, did a forward venture succeed. The Civil War called the attention of many Northern men to the attractions of Florida soil and climate, and many people began to make winter homes along the slow-flowing streams and the breezy, sunny shores of the coast. Numbers of people, too, were compelled by the health of themselves or their families to find a summer shelter from the wintry North. Others, who combined leisure with wealth, sought a playground where the





A LAND CAMP

climate and conditions were conducive to outdoor life. Among these was Mr. Henry M. Flagler of New York, who had for many years been active in some of the largest business enterprises of the world. In 1885, Mr. Flagler, moved in part by sentiment and in part by instinctive love of constructive work, projected, at St. Augustine, the now world-famous Ponce de Leon hotel, which was followed by the Alcazar and Cordova hotels. The successful management of these properties implied a close touch with the North through rapid transit. A little narrow-gauge railway connected St. Augustine with South Jacksonville, where the wide St. John's was crossed by a ferry. A standard gauge line ran from St. Augustine to East Palatka, and a narrow gauge connected Daytona with the St. John's River. In 1886, Mr. Flagler purchased the narrow-gauge road from South Jacksonville to St. Augustine, following this by the purchase of the Daytona narrow gauge in '87, and the St. Augustine-Palatka line in '88. The gauge of the St. Augustine-Jacksonville line was changed to standard in 1888 and of the Daytona line in 1889. The same year the St. John's River bridge was built and through service established between Jacksonville and Daytona. This, however, was but the beginning of Mr. Flagler's enterprise, and by the second of April, 1894, through service was established to West Palm

Beach, 300 miles south of Jacksonville. At Palm Beach, the Royal Poinciana and Breakers hotels were completed, and the Ormond, at Ormond, purchased, altered, and enlarged. From Palm Beach to the mouth of the Miami River Mr. Flagler made the journey overland in a spring wagon, and was so attracted by the climate and country that within two years,



WATER BARGE

or on April 16, 1896, regular train service to Miami was established and the Royal Palm hotel completed. Still from farther south came stories of the attractive climate and fertile soil, and twenty-eight more miles of standard construction carried the Flagler system to Homestead. It was never the intention, after 1902, to end the line at this point. Miami to Key West was the thought in Mr. Flagler's mind. During the building of the Miami-Homestead Line the scouts and surveyors were away to the southward making preliminary surveys, studying channels and watercourses, observing wind and wave and storm, and quietly mapping the route along which the financiers and engineers were sure no enterprise or courage would ever venture with a railway line. True enough, the problems were complex, the labor colossal, the dangers great, the estimated cost tremendous. Entirely new phases in construction and management had to be met. Meteorologic

conditions of an absolutely unique character had to be anticipated and conquered. In a word, no graver situation ever presented itself than that in this suggested railway which would defy the Atlantic and the Gulf, the rush of current and the sweep of storm. Mr. Flagler at that date, and until April 9, 1909, was president of the Florida East Coast Railway, since which time he has been chairman of the board, and his president, then vice-president and general manager, Mr. Joseph R. Parrott, considered carefully all the difficulties involved, weighed all the vexed questions, faced all the dangers, and gave due study to all the adverse opinions as to the feasibility of the project. On the 18th of November, 1903, the republics of the United States and Panama signed that convention which determined the completion of the Panama Canal. The winter following, Mr. Flagler and Mr. Parrott studied preliminary surveys and engineers' reports in a new light. At the end of the winter, Mr. Flagler closed a conference with Mr. Parrott with the question, "Are you sure this railway can be built?" Mr. Parrott answered, "I am sure." "Very well," said the capitalist, with the courage of Columbus, "go ahead." Thus simply and earnestly, the great project had its beginning which was full of the promise of its completion.



ON THE GRADE





MARATHON, THE BUSY CENTER OF ALL WORK SOUTH TOWARD KEY WEST. TRANSFERRING GIRDERS FROM CARS TO BARGES

Naturally, the first requisite to the successful prosecution of the work was an engineer with sufficient courage to undertake it at all, and sufficient skill to meet its many difficulties. This engineer was found in the person of Joseph Carroll Meredith, who was at that time engaged in construction work on the great docks in the harbor of Tampico, Mexico. Having considered the project of the oversea railway as outlined to him, Mr. Meredith was appointed Chief Constructing Engineer and entered on his duty the 22d of July, 1904. From the moment he began his work, Mr. Meredith displayed a modest spirit, an unwavering determination, and a superior skill, facing every danger, meeting every difficulty.

His plans were laid months in advance of the work and practically every detail for the final completion of the work had been put on paper at the time of his death. This untimely event occurred suddenly, the 20th of April, 1909, bringing the sincerest sorrow and the deepest regret to both his superiors and his subordinates. His body was laid to rest in the cemetery at Miami, within sound of the sea whose waters he had bridged.



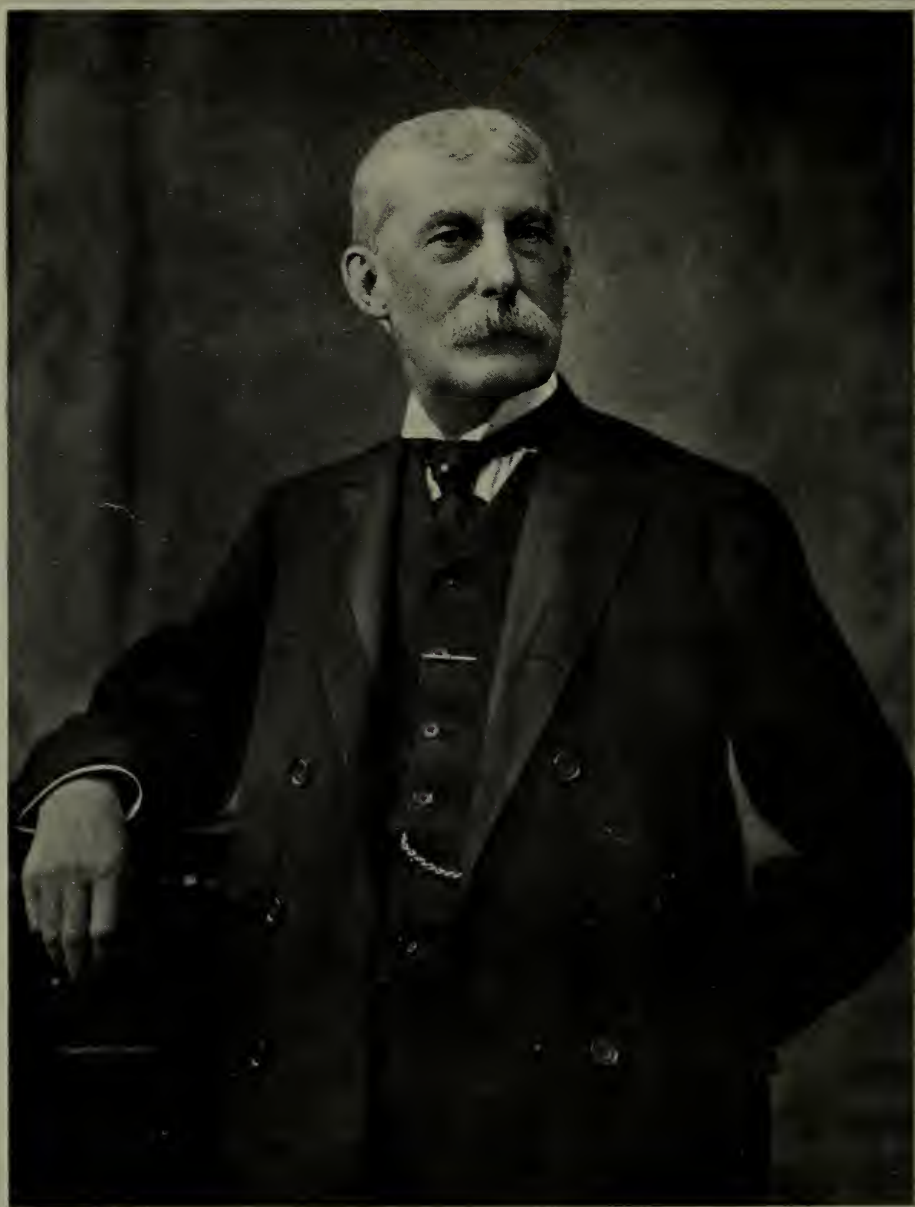
Over his grave rises a splendid unhewn granite monolith with a bronze tablet bearing the inscription:

"IN MEMORY OF JOSEPH CARROLL MEREDITH, CHIEF ENGINEER IN THE CONSTRUCTION OF THE KEY WEST EXTENSION OF THE FLORIDA EAST COAST RAILWAY, WHO DIED AT HIS POST OF DUTY, APRIL 20, 1909. THIS MEMORIAL IS ERECTED BY THE RAILWAY COMPANY IN APPRECIATION OF HIS SKILL, FIDELITY, AND DEVOTION IN THIS LAST AND GREATEST WORK OF HIS LIFE."



KNIGHTS KEY BRIDGE AS IT LEAPS OVER PIGEON KEY

It is impossible here to enter into the details which had to be dealt with by these master minds—details of men, materials, forces, and conditions entirely new to railway engineering experience. The human element alone, in such a project, is of incalculable importance. Building a railway of any length through a comparatively settled country, where labor, food, and water are at hand or easily accessible, is no small undertaking. But, to build over land and over sea in a torrid sun, across channels whose horse power measures into thousands, with only open land and open sea, required an organization in which the human element was of the first importance. Men



*Wm Flagler*



JOSEPH R. PARROTT



WILLIAM J. KROME



JOSEPH C. MEREDITH



of almost every nation on earth had to be summoned to the service and the whole welded into one vital, thinking mechanism, responsive to the master's orders. Material must be gathered from the world's ends to meet untried conditions, and assembled in such quantities and at such points as would best facilitate the work. Methods of construction new to experience and as varied as the changing aspects of the work had to be studied and decided on. Nature's resistance had to be



SHOWING ARCHES WITH FORMS STILL IN PLACE

reckoned with; the known factors of her force computed and the unknown factors provided against. Wave growths over miles of sea had to be measured; wind force generating in the seething area of the Antilles and the Tropic of Cancer had to be considered. In a word, a hundred factors, known and unknown, regarding which no data had been furnished by any previous experience, claimed calm consideration, wise judgment, and an executive ability and fortitude equal to the sum of the whole colossal problem.

## THE ACTUAL WORK

The actual work of construction south of Homestead began in April, 1905, under the immediate charge of Mr. Meredith until his death, the 20th of April, 1909. Mr. Meredith was succeeded by his first assistant, Mr. W. J. Krome, who took up his work with the courage of his predecessor, to which he added his own enthusiasm and determination. Notwithstanding the plans which Mr. Meredith had laid for the completing of the work, there were constant emergencies and unexpected contingencies arising. All these Mr. Krome met with alert intelligence and ready skill. Throughout his work he has been ably assisted by Messrs. P. L. Wilson, C. S. Coe, G. R. Smiley, and Ernest Cotton, as Division Engineers; Mr. R. W. Carter, as Bridge Engineer; Mr. E. H. Sheeran, as General Foreman; and Mr. B. A. Deal, as Auditor of Construction.

During all this time "the grade" has been a teeming hive of industry. Men of almost every nation and every shade of color were gathered for the labor. There were hardy Northmen from Sweden and Norway, mainly filling positions as foremen and overseers. There were Spaniards in great numbers, coming to the work, by way of Cuba, from the northern provinces of Spain. There were American negroes, and negroes from the Bahamas and the Lesser Antilles. Men from Grand Cayman were there, all negroid, though some were black and some almost white. There were divers from Greece, and a horde of nondescripts, many of whom had known and loved "The Bowery" all their lives.

It is doubtful whether ever before in similar work the same care and attention were given to the labor element. Whether they were housed in boats or barracks, every precaution was taken to assure their health and safety. Food of only the best quality was provided in abundance, and everything needful for comfort and recreation was supplied. Ample provision was made for illness or injury "on the grade," and the railway hospital at Miami was especially equipped to meet

the exigencies of the service. Many of the men who labored on the work were better housed and fed, cared for and paid, than they had ever been in all their lives. Loss of life was met with, to be sure, but it is doubtful whether any similar work, in such conditions, could be carried to completion with so much content among the men employed and so little loss of human life. No better proof could be needed of the care the men received and the healthfulness of the climate than is



DRAWBRIDGE ACROSS MOSER CHANNEL

found in the fact that in seven years with thousands of men, some of them none too well when they came to the work, there has been no epidemic and indeed no prevailing sickness. In fact, the percentage of sickness has been much lower than that in the regular army of the United States.

Material of every sort known to construction work was, of course, necessary, and new materials were introduced as new conditions required. Thousands of tons of cement, countless miles of reinforcing iron and steel were used. Indeed, the foundation for one pier required a mixture of sand, gravel, and cement equal in bulk to the cargo of a five-masted schooner.



But it is impossible in this space to enter upon any adequate attempt to describe the detail of the work and materials. Every class of construction, from the simplest piling and rock filling to the matchless reinforced concrete viaduct at Long Key, was used, and again and again new emergencies and new requirements called for the use of entirely new materials and methods. When one considers that "The Extension" "grade" covered vast stretches of water, as well as miles of land, it is not at all difficult to realize that a huge fleet of all kinds of craft had to be brought into service, from the diminutive motor-driven launch to the huge unwieldy dredge. The care and protection of this fleet was in itself a work of vast proportion. As the work approaches completion, to one who was familiar with the territory covered by "The Extension," the finished work, though real as life itself, seems like the structure of a dream. That it is accomplished seems incredible to one who sailed that stretch of sweeping sea now dominated and beautified by the matchless lines and mighty proportions of the Long Key Viaduct. This viaduct alone is a monument to a whole lifetime of constructive skill and enterprise. It will endure throughout the ages. Its sweeping arches will gleam in the sunshine of centuries. Its mighty bulwarks will welcome the beating protests of the hurricane and, like the faith of the man whose genius for building inspired it, it will stand firm, unshaken, indestructible.

Naturally, the foundation of a work as great as this had to be laid on sound financial lines, the supervision of this part of the undertaking during the whole period being in the hands of Mr. W. H. Beardsley, Vice-President and Treasurer.

The industrial phases of the work, with reference to the future settlement of the area to be opened, were in charge of Mr. J. E. Ingraham, Vice-President.

During the progress of the work on this "Extension" the lines of the Florida East Coast Railway north of Homestead were in constant operation. The coöperation of these lines was



SEEMS LIKE THE STRUCTURE OF A DREAM

vital to the progress of the construction work, and this coöperation was assured always through the efforts of Mr. R. T. Goff, until 1909 General Superintendent, and all through the work by Mr. J. P. Beckwith, at first as Traffic Manager, now Vice-President, in charge of traffic and transportation; Mr. W. H. Chambers, Comptroller; Mr. E. Ben Carter, Superintendent of Maintenance of Way; and Mr. G. A. Miller, Superintendent of Motive Power and Machinery. Indeed, the work of "The Extension" evoked such interest that every man along the line gave it his unqualified support.

### THE MOVING SPIRIT

No review of the completion of the Key West Extension would be complete without a word regarding Henry M. Flagler, who inspired and financed this colossal enterprise. Mr. Flagler is a living proof of the fact that the fourth score of the years of a man's lifetime may be the most productive period in his career. Born near Canandaigua, New York, on the 2d of January, 1830, the son of a Presbyterian minister, Mr. Flagler has passed his eighty-second birthday.

Impelled by the spirit which has marked his whole life—the spirit of effort and achievement—he left the quiet life and

shelter of "the manse" when only fourteen years of age. His first journey to Bellvue, Ohio, was made by canal to Buffalo and across Lake Erie. Railroading was in its infancy then, and the wildest fancy of man could hardly have dreamed of "The Extension." Mr. Flagler's earliest business ventures were in the salt, lumber, and grain interests at Saginaw, Michigan, Bellvue, and Cleveland, Ohio, the chief result of which was experience.

With the foresight which has marked his business life, Mr. Flagler was quick to estimate the enormous probabilities of the petroleum industry in the early sixties, and he became a member of the firm of Rockefeller, Flagler & Andrews. To the new conditions of the greatest industrial development the world has ever known, according to the testimony of his associates, Mr. Flagler applied his remarkable constructive ability and followed the lines indicated by his wonderful foresight. The application of scientific economies to a business which was being conducted along most wasteful lines, naturally and of necessity produced the results which have now become historic. When the great industry he had fostered from its infancy had extended its enlightening forces to the world's ends, and trained specialists cared for and watched over its details, at sixty Mr. Flagler might have settled into a life of



WITH ONLY OPEN LAND AND OPEN SEA





SUMMER LANDS WHOSE SHORES ARE BATHED BY SUMMER SEAS

luxury and "well-earned rest" had it not been for that love of building and creating which was his natural endowment and inspiration. Already this little story has narrated how link by link the Florida East Coast Railway made its way over hundreds of miles of undeveloped coast, stirring the land of the silent pines and the sleeping prairies to wonder how man could be so bold. Hotel after hotel, some of world-famed beauty, some of mammoth size, rose under his hand. Following in his wake came hundreds to new homes and new and easier conditions of life. The invaded wilderness, supplied with transportation, was quickly peopled by men and women of intelligence and earnestness. Many of them had left purely intellectual occupations on account of poor health and in search of a genial climate, seeking homes in the great outdoors where a fair living might be earned without excessive toil and the rigors of winter. To such people schools and churches were necessary, and Mr. Flagler has seen to it that they have been supplied. Mile by mile his enterprise has laid the pathway of progress and civilization through an unknown and undeveloped country. To-day, it offers a winter playground to the world. To-day, its ever-increasing horticultural enterprises contribute to the need, the luxury, the comfort of the

world, and that very contribution, in turn, brings back to the multitude providing it the means of livelihood.

Needless to say, the man who has led in all this work is of unique character and unusual personality. As has been said already, his chief quality is in his rare constructive faculty; his ability to see the finished product in the projected plan. Add to this an indomitable perseverance, a determined and consistent regard for good and permanent work, a wise and well-guarded disregard of cost, and one ceases to wonder that in Mr. Flagler's case achievement has been the product of activity. Add to this the fact that Mr. Flagler has, to an unusual degree, the ability to draw and bind men to himself and to inspire them with faith, devotion, and loyalty. Simple in his own life, genial and gentle in his disposition, easily approachable, courteous and kindly to the humblest employee or settler, he has always had that ready loyal service which, given the real leader, is the assurance of success.



WHERE FISH ABOUND AND THE CLIMATE IS ALWAYS PERFECT

In the light of this, though the Key West Extension amazes and astonishes us, we see the underlying secret of its successful completion. To this crowning work of his life Mr. Flagler has given an unflinching faith, an unswerving determination, the enthusiasm of his wisest years, and a princely fortune.

Again and again the elemental forces of the tropics have struck at his work with the vibrating anger of the hurricane, with threatened ruin in its wake. Again and again the man with the silent resolution to succeed has gone on outwitting Nature, mastering men, marshaling world force against world force. To-day, the majestic triumph of man over matter, of



IT IS "OVERSEA" INDEED THAT THE SERIES OF VIADUCTS LEAP GOING SOUTH, BEGINNING WITH KNIGHTS KEY BRIDGE

human effort over Nature, has reared its piles of masonry, its viaducts of concrete, its bridges of steel, into a great national highway which binds the islands of the sea to their native mainland and brings our southernmost port, Key West, into such vital relation with our country's forces that a new line of peaceful defense has been added to our country's safety and prosperity.

Mr. Flagler has often said that the greatest satisfaction he has derived from these undertakings in Florida is in the fact that he has made it possible for thousands of people to live, with comparative comfort, in a genial climate and earn a fair living with but moderate toil and labor. Now that "The Extension" is completed, both he and all Americans must realize that this railway is, as has been said, a new line of defense for our country. Key West, the guardian port of the Gulf for the protection of our whole southern coast line, and within the shortest striking distance of the Panama Canal, is



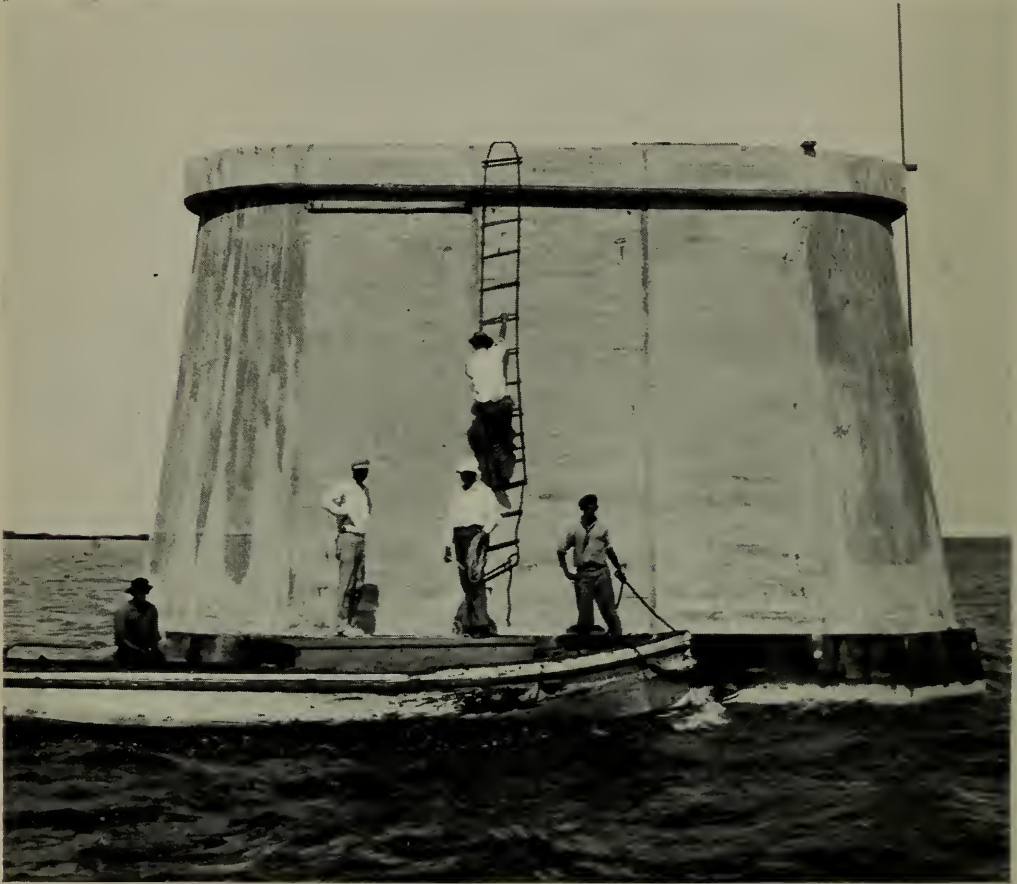
now within forty hours of Washington. A fleet of torpedo boats and destroyers will be enough to guard this oversea railway, while along its path provisions, fuel, and all supplies can be carried in safety to the fleet.

To the pleasure of the philanthropist Mr. Flagler may add the pride of the patriot. As the years go by and our great country extends its paths of peace and progress, his work will remain an evidence of his faith and courage and public spirit, and all men will admit that even this wise and brave Master Builder "builded better than he knew."

Any attempt to describe the route of "The Extension" and its beauties is beset with the inability to put into words scenes which Nature has made inexpressible, and mere geography is rarely of interest. While the Key West Extension really begins at Miami, the railway that brings the Keys and the southern terminus, Key West, into vital touch with the continent leaves the mainland at Everglade station, where Manatee Creek, creeping through miles of open prairie, brings to the line the flood of fresh water which has been the main source of supply.

Crossing by Lake Surprise, over Jewfish, the line emerges on Key Largo, the name indicating the largest Key in the series. Largo has been inhabited and cultivated for years. Crossing the famous Tavernier Pass, where many a pirate found refuge from a threatening enemy, Plantation Key and the two Matecumbes are quickly covered, and off to the eastward one sights Indian Key, a giant emerald set in a gleaming opal sea. Lower Matecumbe is joined to the now well-known Long Key. Here, amidst countless cocoanut trees, Long Key Camp, where fish abound and the climate is always perfect, offers a winter home for those who love an ever-changing but ever-charming sea. Here, too, Long Key is linked to Grassy Key by the marvelous Long Key Viaduct, two and a quarter miles in length, which has already been referred to. South of Grassy, Fat Deer and Key Vaca come in quick succession as stepping stones to Knights Key Dock. Key Vaca, with

Marathon as its station, has been the busy center of all work south toward Key West. Since the 5th of February, 1908, Knights Key Dock has been the southern terminus of "The



GIANT PIERS OF CONCRETE BREAST AND DEFY TIDE AND CURRENT, WIND AND STORM

Extension" and the point of arrival and departure for the ships to Key West and Havana. And here, now that the work is done, we meet one of the splendid surprises and successes of "The Extension." It is "oversea" indeed that the series of viaducts leap going south, beginning with Knights Key Bridge. For a distance of approximately twenty miles from Vaca to West Summerland, a succession of deep and varying "passes" lead from the Gulf into the Atlantic. These are Knights Key Channel, Moser Channel, Pacet, and Bahia Honda channels. Some of these are spanned by piers and steel and some by

concrete arches. Giant piers of concrete breast and defy tide and current, wind and storm. From pier to pier stretch mighty lacings of steel to carry the traffic of men and things to the southward. To the westward lies the Gulf of Mexico, clear to the setting sun; to the eastward rolls the broad ocean that tempted Columbus, where one must sail and sail and never cry "Land Ho" until he sights Cape Blanco on the coast of Africa, and it is nearly five thousand miles, straight to the east, from the desert sea of the South bridged by man's inventiveness to the heart of the Desert of Sahara.

South of these channels and Keys, the larger Keys, Summerland, Big Pine, Cudjoe, Big Coppitt, and Boca Chica furnish the foundation for the highway to the Queen of the Keys—Key West. Here will be the southern terminus and docks of the Florida East Coast Railway, and Key West, already important as a naval station, will be one of the nerve-centers of our South American traffic. Fifteen years ago a satirical correspondent of a New York newspaper wrote: "There must be a brilliant future in store for Key West, as it has no past and very little present." The satirist was a prophet. Key West has a very vital present now, and that a "brilliant future" is in store there can be no doubt. The new artery of life which throbs the whole length of our coast line on the east of the United States will give Key West a place of such importance in the commerce of the world as will make the island in a few years the queen of the southern seas.

### L'ENVOI

Now that the work of the Key West Extension is completed and the most unique railway in the world in actual operation, a new wreath has been won by modern enterprise and skill. The world wondered at tunnels which pierced mountains and passed under rivers; at spiral windings which top the passes of the Sierras; at miles of track which carry life across and into deserts. And now a new wonder is added, to which the world may come with praise and admiration, not only for the





ACROSS THE MORE SHALLOW WATER OPENINGS AND LOW, SWAMPY KEYS

work done but for the faith and courage which dared to undertake it. Land and sea are both laid under tribute; wind and storm have both been beaten; "The Martyrs" have been bound and chained by man at last, and man's enterprise and skill have brought the throb of life, the thrill of human commerce to these islands, which slept like lazy lizards through the summers of uncounted centuries, as they hear the voice of progress repeat the cry of Peter Martyr:

"To the South, To the South."

### **"CONSTRUCTION DATA"**

Surveys south of Homestead with Key West as an objective point were begun in January, 1904. The first construction work was commenced in April, 1905, and the line was opened to traffic as far south as Knights Key Dock in February, 1908.

The total distance from Homestead to Key West Terminal is 128.4 miles. With the completion of the work there will be 17.2 miles of permanent bridge work, including 11.1 miles of concrete arch viaducts and 6.1 miles of steel bridging resting

on concrete piers. The longest bridge is between Knights Key and Little Duck Key, which, with approaches, is over 7 miles in length. Other long bridges are located at Bahia Honda, where through steel trusses up to 243 feet spans are used; and at Long Key Viaduct, a structure of reinforced concrete arches; the remainder of the water spaces, probably 20 miles or more, will be embankment work protected by marl slopes.

The greatest depth of water encountered was at Bahia Honda Harbor, where the foundations of some of the piers are 30 feet below tide level.

Across the more shallow water openings and low, swampy Keys, the roadbed was built by dredges and traveling excavators,



THE ROADBED ON THE KEYS IS OF SUFFICIENT HEIGHT TO BE ABOVE THE HURRICANE TIDES, THE TRACK AT LEFT OF CONCRETE WORK WAS TEMPORARY — FOR CONSTRUCTION PURPOSES

which dug the material from alongside and constructed the embankments ahead of them. A great deal of this type of work necessitated the blasting of the limestone under water, in order to secure the material required to build the embankments. A total distance of 49 miles of this line was constructed by these methods.

The roadbed, along the portions of the line which are exposed to the destructive action of the sea during storms, is being protected by the application of a heavy layer of marine marl. This material is dug by dredges from deep deposits near the



TO THE EASTWARD ROLLS THE BROAD OCEAN THAT TEMPTED COLUMBUS

line and is loaded into trains of steel dump cars which operate on long trestles built out into the marl beds.

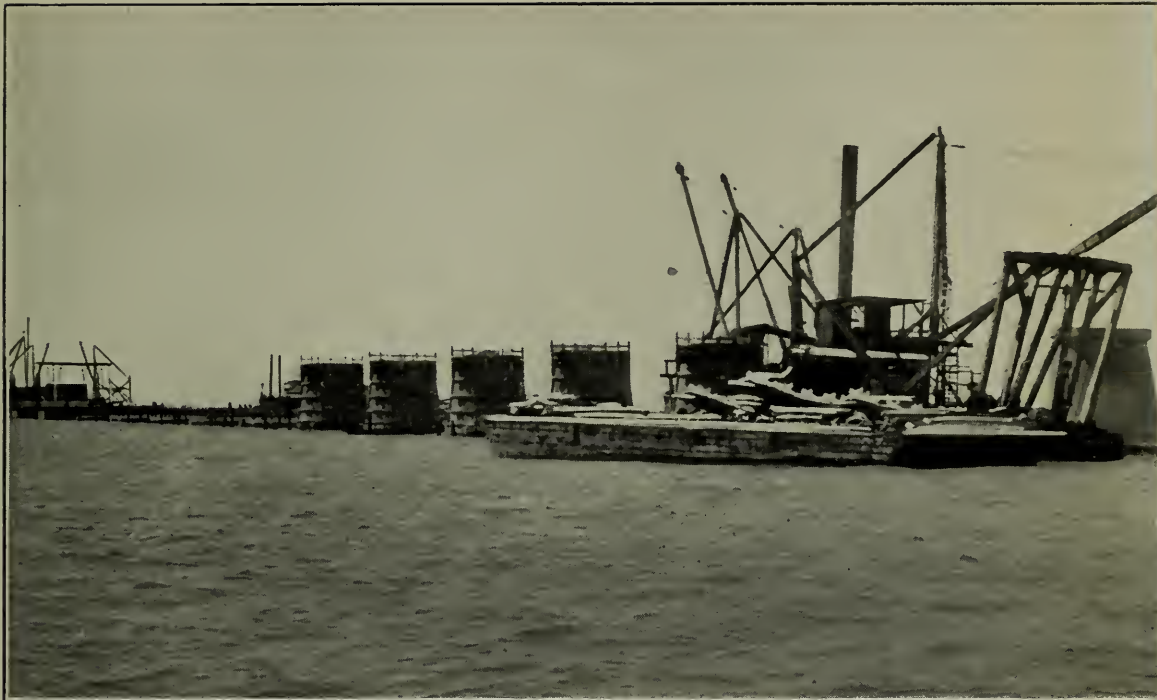
It is hauled to the points where needed and when dumped from the cars flows out to a very flat slope. This marl hardens after exposure to the air and forms a solid protective coating, which has been proven capable of withstanding the heaviest hurricane seas, when the largest rock rip-rap was entirely washed away.

The roadbed on the Keys is built of the native limestone blasted from along the right of way and is of sufficient height to be above hurricane tides. With the deeper waterways spanned by concrete and steel bridges, the embankments across the shallow openings protected by marl slopes, and the roadbed on the Keys secured from damage by the dense jungle intervening between the open water, the line when completed will be of practically storm-proof construction.

At Key West, an area of 134 acres of land has been built, by filling, with hydraulic dredges, the shallow front adjoining the island on the north. This will be used for terminals, and a concrete pier 1,700 feet in length and 134 feet in width is being built to deep water in Man-of-War Harbor. Wide slips are being dredged through solid rock for the full length of this pier, which will permit the berthing of any vessel that can enter the port.



# OVER-SEA



THE FOUNDATION FOR ONE PIER REQUIRED A MIXTURE OF SAND, GRAVEL, AND



LONG KEY IS LINKED TO GRASSY KEY BY THE MARVELOUS LONG KEY VIADUCT







# "HOTEL AFTER HOTEL

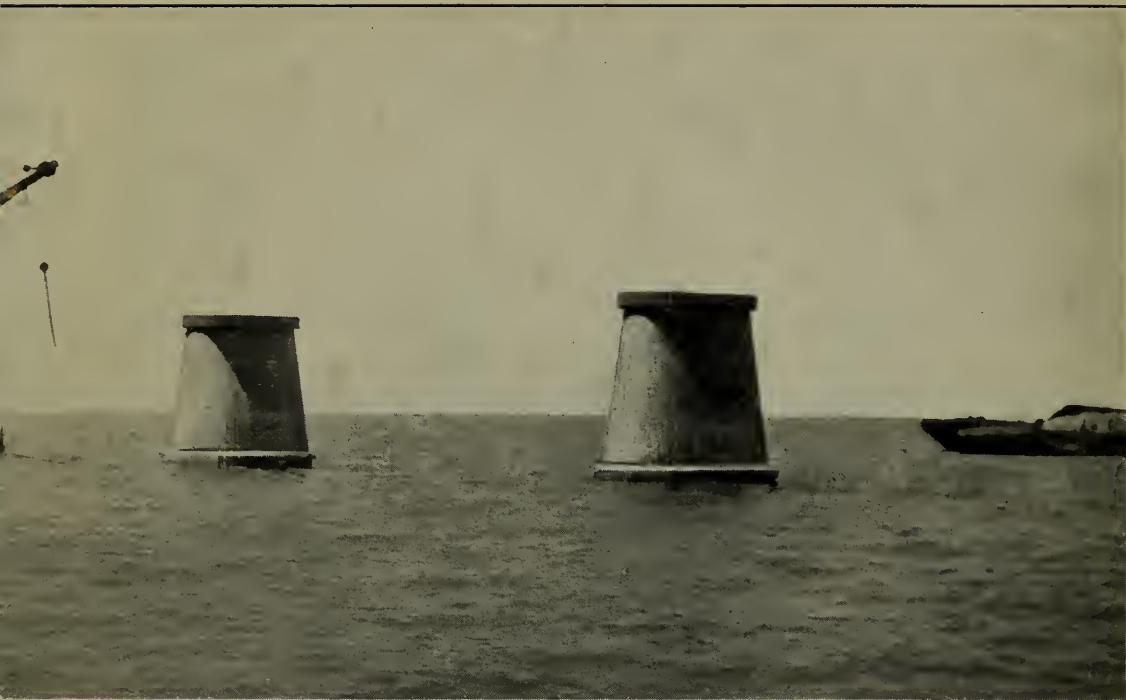
SOME OF WORLD-FAMED BEAUTY,  
SOME OF MAMMOTH SIZE,  
ROSE UNDER HIS HAND"

- |                                 |                                    |
|---------------------------------|------------------------------------|
| 1 PONCE DE LEON, ST. AUGUSTINE  | 5 THE BREAKERS, PALM BEACH         |
| 2 ALCAZAR, ST. AUGUSTINE        | 6 ROYAL PALM, MIAMI                |
| 3 ORMOND, ORMOND-ON-THE-HALIFAX | 7 COLONIAL, NASSAU, BAHAMA ISLANDS |
| 4 ROYAL POINCIANA, PALM BEACH   | 8 CONTINENTAL, ATLANTIC BEACH      |





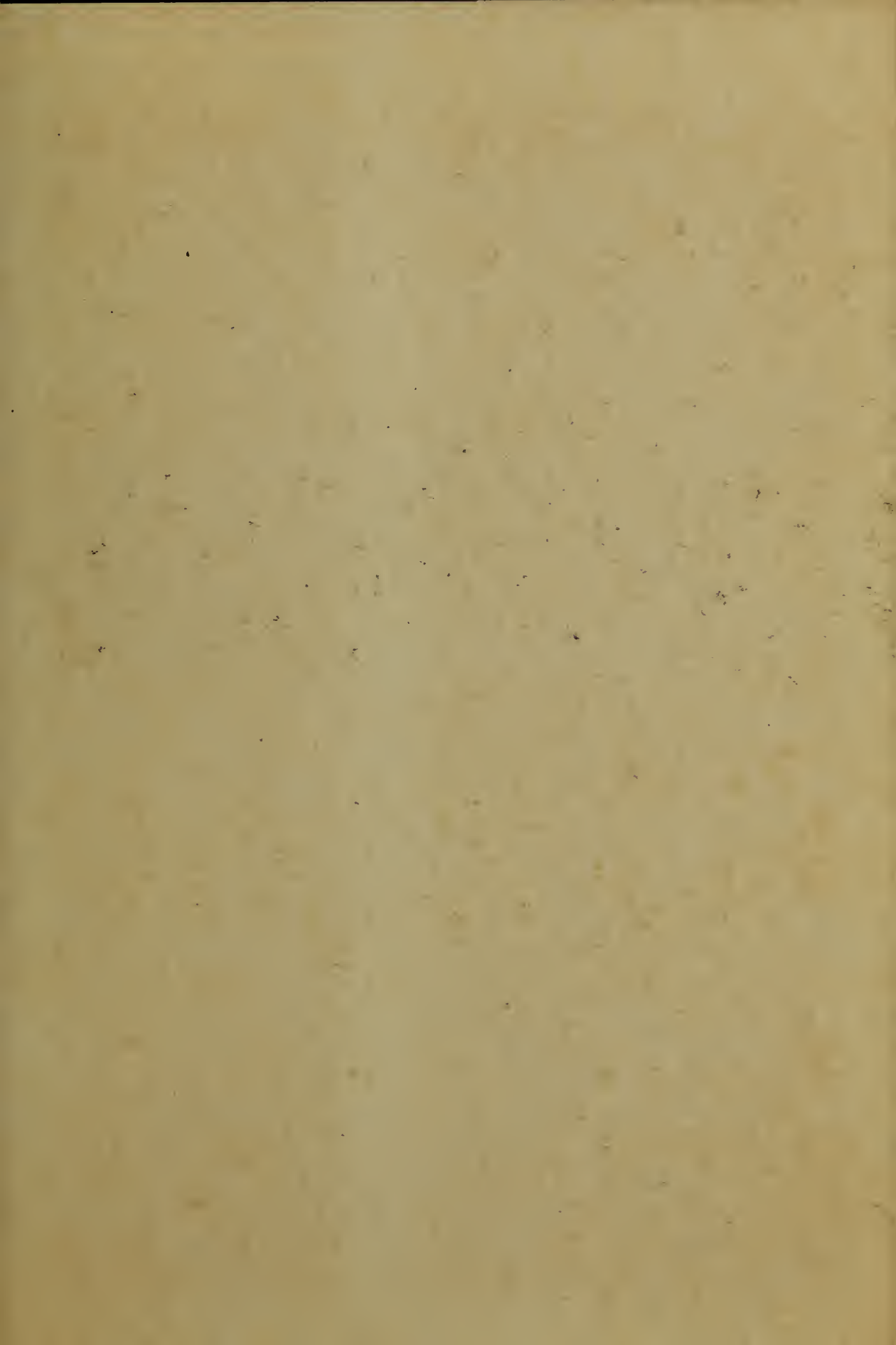
# RAILROAD



D CEMENT EQUAL IN BULK TO THE CARGO OF A FIVE-MASTED SCHOONER

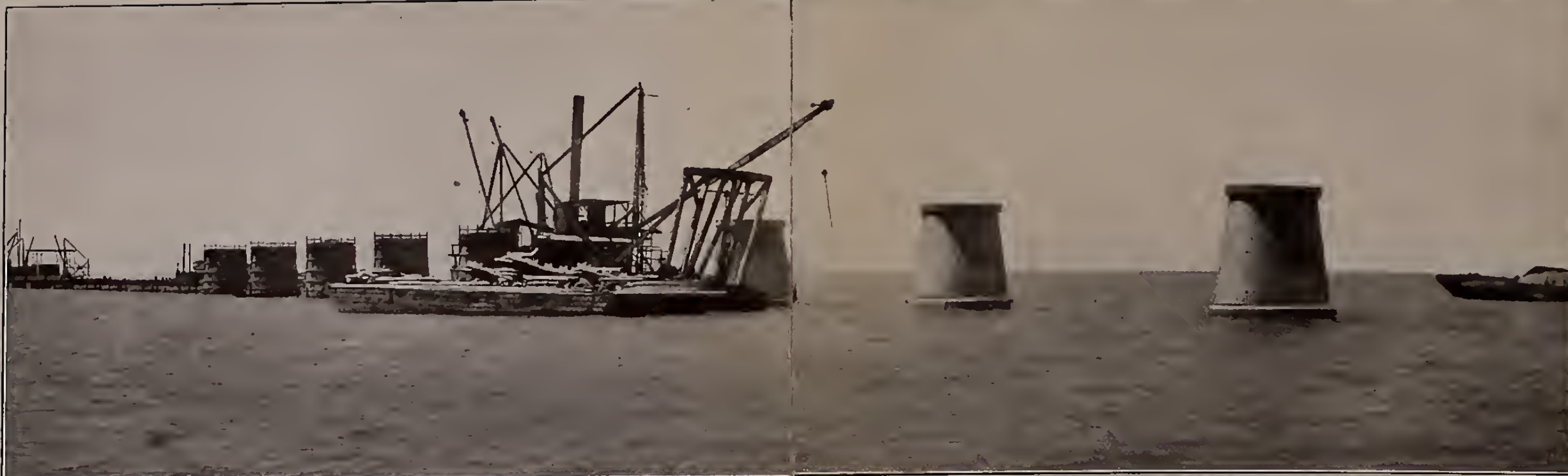


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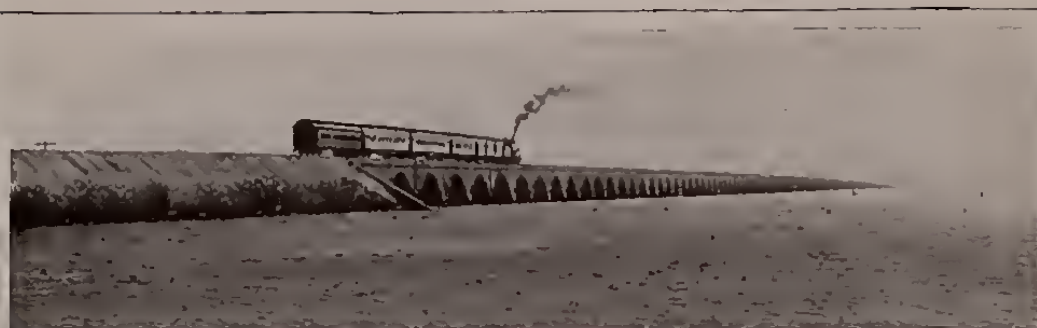




# RAILROAD



THE FOUNDATION FOR ONE PIER REQUIRED A MIXTURE OF SAND, GRAVEL, AND CEMENT EQUAL IN BULK TO THE CARGO OF A FIVE-MASTED SCHOONER



LONG KEY IS LINKED TO GRASSY KEY BY THE MARVELOUS LONG KEY VIADUCT



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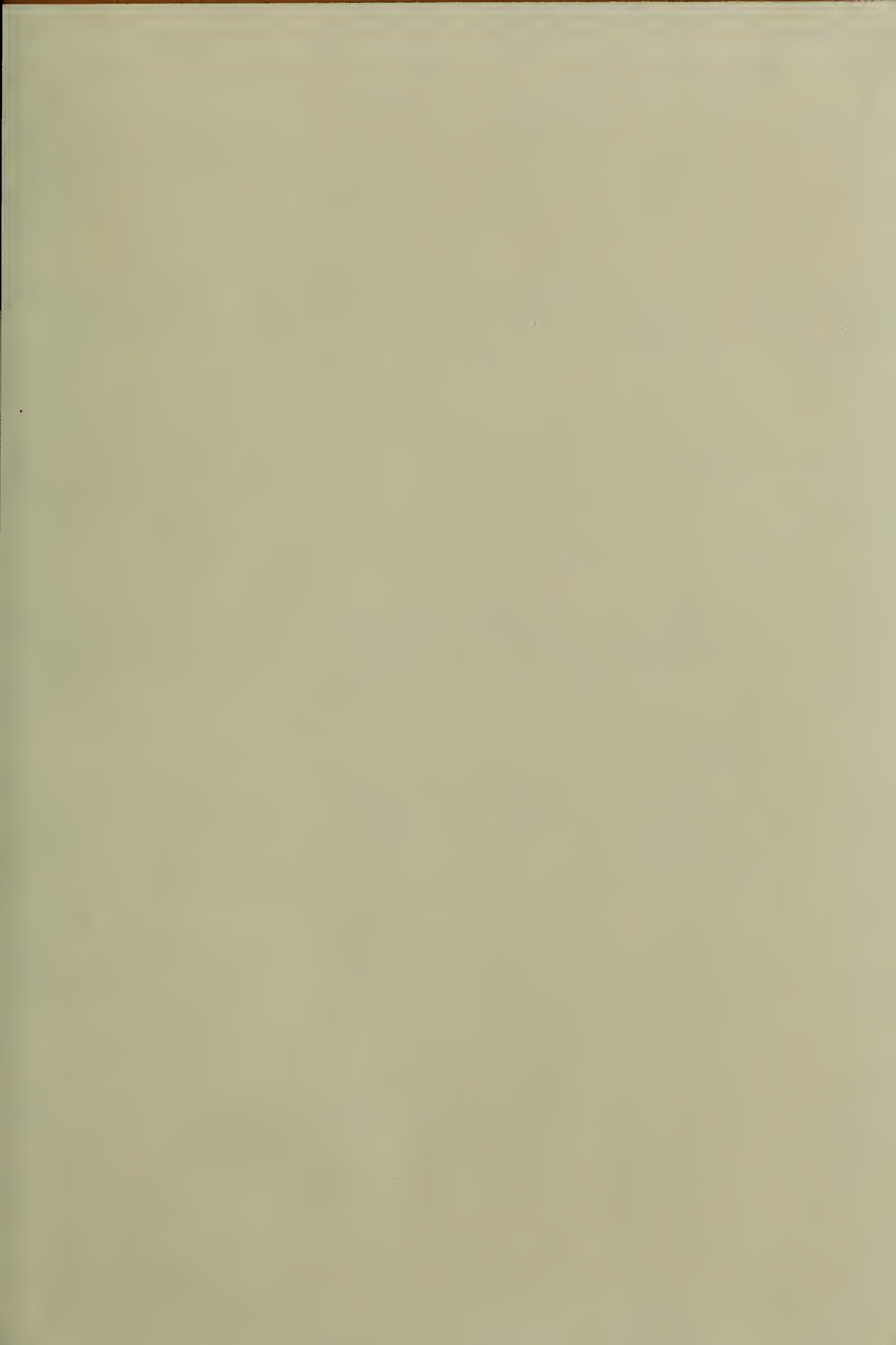


















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